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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,930	02/13/2002	David C. Brown	GSI.6689-C	1694

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EXAMINER

HUGHES, JAMES P

ART UNIT PAPER NUMBER

2883

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/075,930

Applicant(s)

BROWN ET AL.

Examiner

James P. Hughes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2-25-05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 18-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Witteveen (5,430,571). A beam deflecting movable element (e.g. 16) that may be received by a fixed element (e.g. 12, 14) such that the beam deflection movable element may be moved with respect to said fixed element over a plurality of beam deflection positions by overcoming an inertial force being substantially the same at each of the plurality of beam deflecting positions. Witteveen teaches that the beam deflection element (16) separated from a bearing shell (14) by an air bearing interface, in which the beam deflection element (16) may be actuated via a force acting on a permanent magnet (e.g. 32) on the beam deflection element (16) which acts through a magnetically permeable material (e.g. 16, 14, 34) – which includes a plurality of arms with stator coils wrapped around the arms – to apply a movement force to the beam deflecting movable element (e.g. 16) that is greater than an inertial force, and for permitting said beam deflecting moveable element to remain in a fixed position (e.g. the “rest” position of fig.

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1) with respect to the fixed element (12, 14) when not activated due to the presence of said inertial force. (See e.g., Col. 4, ll. 17 – Col. 5, ll. 65)

### *Allowable Subject Matter*

The following is a statement of reasons for the indication of allowable subject matter. Claims 1-17 are allowable. Claims 1 and 13 are allowable because the prior art of record fails to teach or fairly suggest an apparatus, or means, for directing a radiation beam comprising: a coefficient of friction exists between the moveable member and a fixed member; said magnetic traction force in combination with the coefficient of friction provides a clamping force for holding the moveable element in a stationary orientation when no current is passing through the current coil; in combination with the other recited limitations in the claims. Claims 2-12 and 14-17 are allowed by virtue of their dependence on claims 1 and 13 respectively.

### *Conclusion*

2. Laor (6,526,194), hereinafter referred to as “Loar”, teaches an adjustable beam deflector that would read at least on claims 18, 22, and 23. Loar teaches a beam deflecting movable element (mirror 9) that may be received by a fixed element (e.g. hinge 11) such that the beam deflection movable element may be moved with respect to said fixed element over a plurality of beam deflection positions by overcoming an inertial force – e.g. that provided by friction between the mirror housing and hinge (11) – being substantially the same at each of the plurality of beam deflecting positions. Laor teaches that the beam deflection element (9) may be actuated by magnets (19) applying a

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movement force to a magnetically permeable material (17) that is greater than an inertial force, and for permitting said beam deflecting moveable element to remain in a fixed position (e.g. the "rest" position of fig. 4) with respect to the fixed element (11) when not activated due to the presence of said inertial force. (See e.g., Col. 7, ll. 24 – Col. 9, ll. 65)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James P. Hughes whose telephone number is 571-272-2474. The examiner can normally be reached on Monday - Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James P. Hughes  
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